WHAT IS CLAIMED IS:

1. For forming an ink-jet-ink-derived material image on an operational surface of a member and transferring said ink-jet-ink-derived material image to a receiver member, an imaging apparatus comprising:

an ink jet device including a first source of a first ink having a liquid phase and a second source of a second ink having a liquid phase, said ink jet device adapted to provide imagewise jetting, on to said operational surface, droplets of said first ink from said first source and droplets of said second ink from said second source, thereby forming on said operational surface of said member a primary image including at least the liquid phase of at least one of said first ink and said second ink;

a plurality of process zones associated with said operational surface of said member, said plurality of process zones located sequentially in proximity with said operational surface, and said plurality of process zones including a coagulate formation process zone, an excess liquid removal process zone, and a transfer process zone;

in said coagulate formation process zone, a coagulate forming mechanism for causing a formation of coagulates within a liquid phase of said primary image;

in said excess liquid removal process zone, a liquid removal mechanism for removing from said coagulates a portion of said liquid phase to form on said operational surface a liquid-depleted image; and

in said transfer process zone, a transfer mechanism for transferring, to a receiver member from said operational surface, said liquid-depleted image;

wherein one of said first ink and said second ink is a coagulable marking ink and the other of said first ink and said second ink is a non-marking ink, said marking ink and said non-marking ink being mutually miscible in said primary image; and

wherein said primary image includes a plurality of smallest resolved imaging areas, each of said plurality of smallest resolved imaging areas having received, from said ink jet device, a preselected number of droplets of said

first ink and a complementary preselected number of droplets of said second ink, said preselected number including zero and said complementary preselected number including zero.

2. The apparatus according to Claim 1, further comprising:

a regeneration process zone included in said plurality of process zones, said regeneration process zone associated in proximity with said operational surface of said member at a location between said transfer zone and said ink jet device; and

wherein said regeneration process zone is provided with a mechanism for regenerating said operational surface, said regenerating preceding a subsequent formation by said ink jet device of a new primary image.

3. The apparatus according to Claim 1, wherein each of said plurality of smallest resolved imaging areas receives, prior to receiving any droplets of said complementary preselected number of droplets of said non-marking ink, a fraction of said preselected number of droplets of said marking ink, said fraction including zero and one.

4. The apparatus according to Claim 1, wherein each of said plurality of smallest resolved imaging areas receives a fraction of said preselected number of droplets of said non-marking ink, said fraction including zero and one, prior to receiving any droplets of said complementary preselected number of droplets of said marking ink.

5. The apparatus according to Claim 1, wherein, in each of said plurality of smallest resolved imaging areas included in said primary image, a sum of said preselected number of droplets and said complementary preselected number of droplets is substantially equal to a preselected total number of droplets.

6. The apparatus according to Claim 1, wherein, in each of said plurality of smallest resolved imaging areas included in said primary image, a mixed volume, resulting from a mixing on said operational surface of all of said preselected number of droplets with all of said complementary preselected number of droplets, is substantially equal to a preselected mixed volume.

7. The apparatus according to Claim 1, wherein said coagulable marking ink is a dispersion made of pigmented particles dispersed in a carrier liquid, said non-marking ink including substantially no dispersed particles and said non-marking ink made from a liquid similar to said carrier liquid.

8. The apparatus according to Claim 7, wherein said pigmented particles are charged particles, and wherein counterion species having a polarity opposite to a polarity of said charged particles are dispersed in said carrier liquid.

9. The apparatus according to Claim 1, wherein said coagulable marking ink is a dispersion made of pigmented particles dispersed in a first carrier liquid, and said non-marking ink is a coagulable ink made of a dispersion of unpigmented particles in a second carrier liquid.

10. The apparatus according to Claim 9, wherein said pigmented particles are charged particles and said unpigmented particles are charged particles, said pigmented particles and said unpigmented particles having a same polarity, wherein a plurality of first counterion species having a polarity opposite to said same polarity are dispersed in said first carrier liquid and a plurality of second counterion species having a polarity opposite to said same polarity are dispersed in said second carrier liquid.

11. The apparatus according to Claim 1, wherein said marking ink is an electrocoagulable ink and said non-marking ink includes substantially no electrocoagulable material.

12. The apparatus according to Claim 1, wherein said marking ink is an electrocoagulable ink and said non-marking ink is an electrocoagulable ink.

13. The apparatus according to Claim 1, wherein said first ink and said second ink are nonaqueous inks.

14. The apparatus according to Claim 1, wherein said first ink and said second ink are aqueous-based inks.

15. The apparatus according to Claim 1, wherein said member is a rotatable intermediate member.

16. The apparatus according to Claim 1, wherein said member is a linearly-movable intermediate member.

17. The apparatus according to Claim 15, wherein said ink jet device forms a half-tone primary image on said intermediate member.

18. The apparatus according to Claim 15, wherein said ink jet device forms a continuous tone primary image on said intermediate member.

19. The apparatus according to Claim 8, wherein said coagulate forming mechanism for causing a formation of coagulates in said coagulate formation process zone is an electric field mechanism, which electric field mechanism is selected from the group consisting of:

a corona charging device;

a contacting device including an electrode; and

a non-contacting device including an electrode.

20. The apparatus according to Claim 19, wherein said electric field mechanism is a corona charging device, and wherein said corona charging device provides corona ions of a same polarity as a polarity of said particles dispersed in said carrier fluid, which ions are directed towards said primary image to charge said primary image.

21. The apparatus according to Claim 19, wherein said electrode has a same polarity as a polarity of said particles dispersed in said carrier fluid.

22. The apparatus according to Claim 10, wherein said coagulate forming mechanism for causing a formation of coagulates in said coagulate formation process zone is an electric field mechanism, which electric field mechanism is selected from the group consisting of:

a corona charging device;

a contacting device including an electrode; and

a non-contacting device including an electrode.

23. The apparatus according to Claim 22, wherein said corona charging device provides corona ions of a same polarity as said same polarity of said pigmented particles and said unpigmented particles, which ions are directed towards said primary image to charge said primary image.

24. The apparatus according to Claim 22, wherein said electrode has a same polarity as said same polarity of said pigmented particles and said unpigmented particles.

25. **(Presently Amended)** The apparatus according to Claim 22, wherein said electric field mechanism is a corona charging device, and wherein said mechanism for removing a portion of said liquid phase in said excess liquid removal process zone comprises a liquid-removal device, said liquid-removal device including at least one of the group consisting of:

a squeegee roller;

a squeegee blade;

a contacting blotting device;

an evaporation device;

a vacuum device;

a skiving device; and

an air knife device.

26. The apparatus according to Claim 7, wherein said pigmented particles for inclusion in a marking ink comprises a finely divided pigment dispersed in a binder.

27. The apparatus according to Claim 9, wherein said pigmented particles for inclusion in a marking ink comprises a finely divided pigment dispersed in a binder.

28. The apparatus according to Claim 7, wherein said coagulate forming mechanism comprises: a salt donation mechanism, for introducing into said liquid phase of said primary image a dissolved salt, said salt including at least one of a multivalent cation and a multivalent anion.

29. The apparatus according to Claim 9, wherein said coagulate forming mechanism comprises: a salt donation mechanism, for introducing into said liquid phase of said primary image a dissolved salt, said salt including at least one of a multivalent cation and a multivalent anion.

30. The apparatus according to Claim 7, wherein said coagulate forming mechanism comprises: a pH-altering donation mechanism for introducing a pH-altering material into said liquid phase of said primary image, said dispersion of pigmented particles and said dispersion of unpigmented particles being electrostatically stabilized aqueous-based dispersions.

31. The apparatus according to Claim 9, wherein said coagulate forming mechanism comprises: a pH-altering donation mechanism for introducing a pH-altering material into said liquid phase of said primary image, said dispersion of pigmented particles and said dispersion of unpigmented particles being electrostatically stabilized aqueous-based dispersions.

32. The apparatus according to Claim 7, wherein said coagulate forming mechanism comprises: a non-solvent donation mechanism for introducing into said liquid phase of said primary image a non-solvent liquid, which non-solvent liquid is miscible with said liquid phase, wherein in said marking ink and said non-marking ink, said respective pigmented particles and said respective unpigmented particles are respectively sterically stabilized by respective polymeric moieties respectively attached to said pigmented particles and said unpigmented particles, which respective polymeric moieties attached to said respective pigmented particles and said respective unpigmented particles are incompatible with said non-solvent liquid, such that said respective polymeric moieties respectively change configurational shapes from extended shapes to tight conformations after an addition of said non-solvent, thereby causing coagulates to form.

33. The apparatus according to Claim 9, wherein said coagulate forming mechanism comprises: a non-solvent donation mechanism for introducing into said liquid phase of said primary image a non-solvent liquid, which non-solvent liquid is miscible with said liquid phase, wherein in said marking ink and said non-marking ink, said respective pigmented particles and said respective unpigmented particles are respectively sterically stabilized by respective polymeric moieties respectively attached to said pigmented particles and said unpigmented particles, which respective polymeric moieties attached to said respective pigmented particles and said respective unpigmented particles are incompatible with said non-solvent liquid, such that said respective polymeric moieties respectively change configurational shapes from extended shapes to tight conformations after an addition of said non-solvent, thereby causing coagulates to form.

34. The apparatus according to Claim 7, wherein said coagulate forming mechanism comprises: a hetero-colloid donation mechanism for introducing into said primary image a hetero-colloid liquid, which hetero-colloid liquid and said liquid phase are mutually miscible.

35. The apparatus according to Claim 9, wherein said coagulate forming mechanism comprises: a hetero-colloid donation mechanism for introducing into said primary image a hetero-colloid liquid, which hetero-colloid liquid and said liquid phase are mutually miscible.

36. The apparatus according to Claim 7, wherein said coagulate forming mechanism comprises: a polymer-solution-donation mechanism for introducing, into said liquid phase of said primary image, a polymeric material to induce a depletion flocculation, said polymeric material being compatible with said liquid phase of said primary image.

37. The apparatus according to Claim 9, wherein said coagulate forming mechanism comprises: a polymer-solution-donation mechanism for introducing, into said liquid phase of said primary image, a polymeric material to induce a depletion flocculation, said polymeric material being compatible with said liquid phase of said primary image.

38. The apparatus according to Claim 7, wherein said coagulate forming mechanism comprises: a denuding agent mechanism for causing in said primary image at least one of a desorbing, a debonding, and a partial destroying of sterically stabilizing polymeric moieties bound to surfaces of sterically stabilized particles of said first ink and said second ink, said denuding mechanism including a source of radiation selectively absorbed by said polymeric moieties.

39. The apparatus according to Claim 9, wherein said coagulate forming mechanism comprises: a denuding agent mechanism for causing in said primary image at least one of a desorbing, a debonding, and a partial destroying of sterically stabilizing polymeric moieties bound to surfaces of sterically stabilized particles of said first ink and said second ink, said denuding mechanism including a source of radiation selectively absorbed by said polymeric moieties.

40. The apparatus according to Claim 7, wherein said coagulate forming mechanism comprises: a temperature-altering mechanism for altering the temperature of a primary image, which temperature-altering mechanism includes a heating of said primary image when said marking ink and said non-marking ink are stabilized by an enthalpic stabilization, and which temperature-altering mechanism includes a cooling of said primary image when said marking ink and said non-marking ink are stabilized by an entropic stabilization.

41. The apparatus according to Claim 9, wherein said coagulate forming mechanism comprises: a temperature-altering mechanism for altering the temperature of a primary image, which temperature-altering mechanism includes a heating of said primary image when said marking ink and said non-marking ink are stabilized by an enthalpic stabilization, and which temperature-altering mechanism includes a cooling of said primary image when said marking ink and said non-marking ink are stabilized by an entropic stabilization.

42. The apparatus according to Claim 13, wherein said nonaqueous inks have a flash point greater than or equal to about 140°F.

43. The apparatus according to Claim 1, wherein at least one of said first ink and said second ink comprises a colloidal dispersion being characterized by at least one of a steric stabilization and an electrostatic stabilization.

44. The apparatus according to Claim 1, wherein said member is an intermediate member, which comprises:

a support;

a compliant layer formed on said support;

an thin outer layer formed on said compliant layer; and

wherein said support includes one of a drum, a web, and a planar linearly-movable member.

45. The apparatus according to Claim 44, wherein said thin outer layer is made from a group of materials including sol-gels, ceramers, and polyurethanes.

46. The apparatus according to Claim 1, wherein said member is an intermediate member, which comprises an electrode biasable by a source of potential including ground potential.

47. The apparatus according to Claim 1, wherein said transfer mechanism for transferring includes at least one of the group consisting of an electrostatic transfer mechanism, a thermal transfer mechanism, and a pressure transfer mechanism.

48. The apparatus according to Claim 2, wherein said regenerating mechanism for regenerating said operational surface comprises at least one of a group consisting of a cleaning blade, a squeegee, a scraper for scraping said operational surface, a cleaning roller, a cleaning brush, a solvent applicator, and a wiper.

49. A digital imaging machine for generating a multicolor ink-jet-ink-derived material image, said digital imaging machine including a plurality of modules arranged sequentially, each module respectively comprising:

an ink jet device for imagewise jetting, on to an operational surface of an intermediate member, droplets of a coagulable marking ink and droplets of a non-marking ink, said ink jet device thereby forming on said operational surface of said intermediate member a primary image;

a plurality of process zones associated with said operational surface of said intermediate member, said plurality of process zones located sequentially in proximity with said operational surface, said plurality of process zones including a coagulation formation process zone, an excess liquid removal process zone, a transfer process zone, and a regeneration process zone;

a coagulate forming mechanism in said coagulation formation process zone for causing formation of coagulates in a liquid phase of said primary image;

a liquid removing mechanism for removing a portion of said liquid phase in said excess liquid removal process zone to form on said operational surface a respective liquid-depleted image;

a transport for moving a receiver sequentially through said each module;

a transfer mechanism for transferring said liquid-depleted image to said receiver from said operational surface in said transfer process zone; and

a regeneration mechanism for forming on said operational surface a regenerated operational surface for a subsequent formation thereon, by said ink jet device, of a new primary image, said regeneration process zone associated in proximity with said intermediate member at a location between said transfer process zone and said ink jet device;

wherein said primary image includes a plurality of smallest resolved imaging areas, each of said plurality of smallest resolved imaging areas receiving, from said ink jet device, a preselected number of droplets of said first ink and a complementary preselected number of droplets of said second ink, said preselected number of droplets of said first ink and said complementary preselected number of droplets of said second ink mixing to form a predetermined substantially same volume in said each of said plurality of smallest resolved imaging areas, said preselected number including zero and said complementary preselected number including zero;

wherein said intermediate member includes one of the group of a rotatable member and a linearly-movable member;

wherein said primary image formed on said operational surface of said intermediate member, is formed as one of the group of a continuous tone primary image and a half-tone primary image; and

wherein a respective color ink-jet-ink-derived material images are successively transferred in register to said receiver in each of said modules included in said plurality of modules, thereby creating said ink-jet-ink-derived material multicolor image on said receiver.

50. A digital imaging machine according to Claim 49, wherein said receiver which is moved sequentially through said each module is adhered to a moving transport belt, which transport belt is included in a plurality of transfer nips for transfer of each said liquid-depleted image to said receiver, each said plurality of transfer nips being included in said transfer process zone, each said intermediate member having the form of a roller engaged with a backup roller to respectively form each of said plurality of transfer nips.

51. A digital imaging machine according to Claim 49, wherein said receiver which is moved sequentially through said each module is adhered to a receiver-transporting roller, which receiver-transporting roller is included in a plurality of respective transfer nips for transfer of said each liquid-depleted image to said receiver, each of said plurality of respective transfer nips being included in a respective transfer process zone.

52. A digital imaging machine according to Claim 49, wherein said respective coagulable marking ink includes one of the group of an electrocoagulable ink and a dispersion of pigmented particles dispersed in a carrier liquid, and wherein said non-marking ink includes one of the group: a liquid which substantially contains no particles and no electrocoagulable material, a dispersion of unpigmented particles in a carrier liquid, and an electrocoagulable ink.

53. A digital imaging machine for generating a multicolor ink-jet-ink-derived material image, said digital imaging machine including a plurality of modules arranged sequentially, each module respectively comprising:

an ink jet device for imagewise respectively jetting, on to an operational surface of an intermediate member, droplets of a coagulable marking ink and droplets of a non-marking ink, said ink jet device thereby forming on said operational surface of said intermediate member a primary image;

a plurality of process zones associated with said operational surface of said intermediate member, said plurality of process zones located sequentially in proximity with said operational surface, said respective plurality of process zones including an image concentrating process zone, an excess liquid removal process zone, and a transfer process zone;

a concentrating mechanism for concentrating in said respective image concentrating process zone said particles of said primary image to form a concentrated image on said operational surface from said primary image, said mechanism for concentrating said particles causing said particles to become concentrated adjacent said operational surface;

in said each respective module, a mechanism for removing in said respective excess liquid removal process zone a portion of said carrier liquid from said respective concentrated image to form on said respective operational surface a respective liquid-depleted image;

a common member, which is moved sequentially through each said respective module;

a transfer mechanism for transferring to said common member, from said operational surface in said transfer process zone, said liquid-depleted image such that a color ink-jet-ink-derived material image is successively transferred in registry to said common member in each of said modules included in said plurality of modules, thereby forming a plural image on said common member;

a regeneration mechanism for respectively forming on each said operational surface a regenerated operational surface for a subsequent formation thereon, by said ink jet device, of a new primary image, said regeneration process zone associated in proximity with said intermediate member at a location between said transfer process zone and said ink jet device; and

in a plural image pressure transfer nip including said common member, said plural image is transferred by a plural image transfer mechanism to a receiver transported through said plural image pressure transfer nip, thereby creating said ink-jet-ink-derived material multicolor image on said receiver;

wherein said primary image includes a plurality of smallest resolved imaging areas, each of said plurality of smallest resolved imaging areas receiving, from said respective ink jet device, a preselected number of droplets of said first ink and a complementary preselected number of droplets of said second ink, said preselected number of droplets of said first ink and said complementary preselected number of droplets of said second ink mixing to form a predetermined substantially same volume in said each of said plurality of smallest resolved imaging areas, said preselected number including zero and said complementary preselected number including zero;

wherein said common member includes one of a rotatable member and a linearly-movable member;

wherein said intermediate member includes one of a rotatable member and a linearly-movable member; and

wherein said primary image, formed on said operational surface of said intermediate member, is formed as one of a continuous tone primary image and a half-tone primary image.

54. A digital imaging machine according to Claim 53, wherein said coagulable marking ink includes one of an electrocoagulable ink and a dispersion of pigmented particles dispersed in a carrier liquid, and wherein said non-marking ink includes one of the following: a liquid which substantially contains no particles and no electrocoagulable material, a dispersion of unpigmented particles in a carrier liquid, and an electrocoagulable ink.

55. In a digital imaging apparatus having a tandemly arranged plurality of image forming modules, wherein a plurality of ink-jet-ink-derived images are sequentially made in said plurality of image forming modules for successive transfers in register to a receiver member to form a completed plural image on said receiver member, and wherein each image forming module includes an intermediate member on which an ink-jet-ink-derived image is formed on an

operational surface, a method of making said completed plural image comprising the steps of:

forming a primary image on said operational surface of said intermediate member by depositing from an ink jet device droplets of a coagulable marking ink and droplets of a respective non-marking ink;

causing a portion of said carrier liquid from said primary image to be removed to form a liquid-depleted image;

transferring said liquid-depleted images to said receiver member, said transferring done in register atop any liquid-depleted images previously transferred to said receiver member;

in a last said module of said plurality of image forming modules, transferring a last liquid-depleted image to form on said receiver member said completed plural image;

wherein in said step of forming a primary image, said coagulable marking ink includes one of the group of an electrocoagulable ink and a dispersion of pigmented particles dispersed in a carrier liquid, and wherein said non-marking ink includes one of the group of: a liquid which substantially contains no particles and no electrocoagulable material, a dispersion of unpigmented particles in a carrier liquid, and an electrocoagulable ink; and

prior to said step of forming a primary image, a step of regenerating said operational surface to prepare said operational surface for receiving a new primary image from said ink jet device.

56. In a digital imaging apparatus having a tandemly arranged plurality of image forming modules, wherein a plurality of ink-jet-ink-derived images are sequentially made in said plurality of image forming modules for sequential transfers in register to a common member to form a plural image on said common member, said plural image for transfer to a receiver member from said common member, and wherein each of said image forming modules includes an intermediate member on which an ink-jet-ink-derived image is formed on an operational surface, a method of making said completed plural image comprising the steps of:

forming a primary image on said operational surface of said intermediate member by depositing from an ink jet device droplets of a coagulable marking ink and droplets of a non-marking ink;

causing a portion of said carrier liquid from said primary image to be removed to form a respective liquid-depleted image;

transferring said liquid-depleted images to said common member, said transferring done in register atop any liquid-depleted image previously sequentially transferred in register to said common member;

after a last said respective liquid-depleted image is transferred in register to said common member to form a full color ink-jet-ink-derived image on said common member, transferring said full color ink-jet-ink-derived image to said receiver member to form said completed plural image thereon;

wherein in said step of forming a primary image, said coagulable marking ink includes one of the group of an electrocoagulable ink and a dispersion of pigmented particles dispersed in a carrier liquid, and wherein said non-marking ink includes one of the following: a liquid which substantially contains no particles and no electrocoagulable material, a dispersion of unpigmented particles in a carrier liquid, and an electrocoagulable ink; and

prior to said step of forming a respective primary image, a step of regenerating said respective operational surface to prepare said operational surface for receiving a new primary image from said ink jet device.

57. A method of making an ink-jet-ink-derived image comprising the steps of:

forming an ink image on an operational surface of an intermediate member, said ink image including a coagulable marking ink and a non-marking ink wherein each smallest resolved imaging area of said ink image includes a mixed volume of said coagulable marking ink and said non-marking ink, said mixed volume being substantially equal to a preselected mixed volume;

forming, in said ink image, coagulates in a liquid phase;

removing a portion of said liquid phase from said ink image to form a liquid-depleted ink-jet-ink-derived material image; and

transferring said liquid-depleted ink-jet-ink-derived material image from said operational surface to another member.